

2015-16 RUFFED GROUSE POPULATION STATUS REPORT



KENTUCKY DEPARTMENT OF FISH AND WILDLIFE RESOURCES

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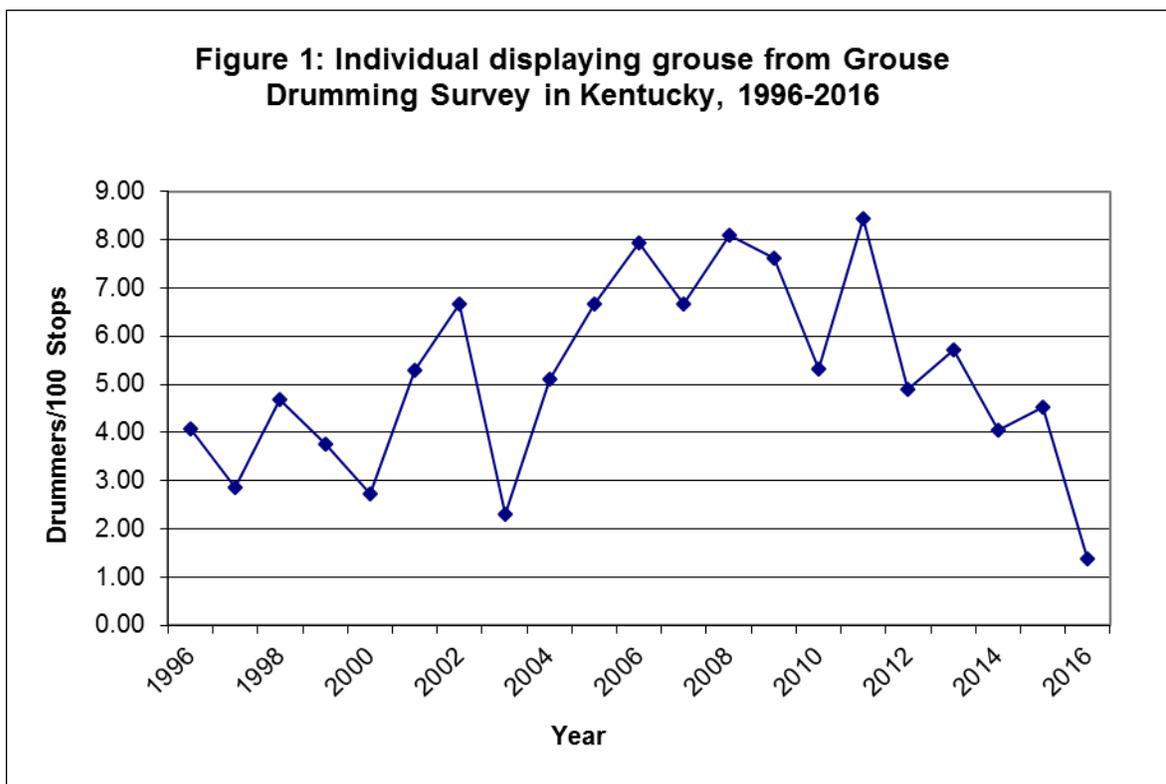
METHODS

The Ruffed Grouse Population Status Report is a compilation of two surveys that the Kentucky Department of Fish and Wildlife Resources (KDFWR) conducts annually to track the status of Kentucky's grouse population. First, a drumming survey utilizes KDFWR biologists to conduct 15-stop driving routes during the month of April to listen for and record the number of grouse drumming at each stop. Second, the Grouse Hunter Log Survey summarizes hunting activity and success of hunters across the state. Combining the information we receive from those 2 surveys, we can create population trends from flush and harvest data and track hunter effort and success.

Kentucky's 2015-16 ruffed grouse hunting season began Nov. 1, 2015 and ended Feb. 29, 2016. Hunters were able to pursue grouse in 53 eastern Kentucky counties. An early grouse season was open on 6 wildlife management areas (WMA) from Oct. 1 to Dec. 31, 2014 (90 days). Those WMAs included Beaver Creek, Big South Fork National River and Recreation Area, Cane Creek, Dix River, Fleming, and Lake Cumberland.

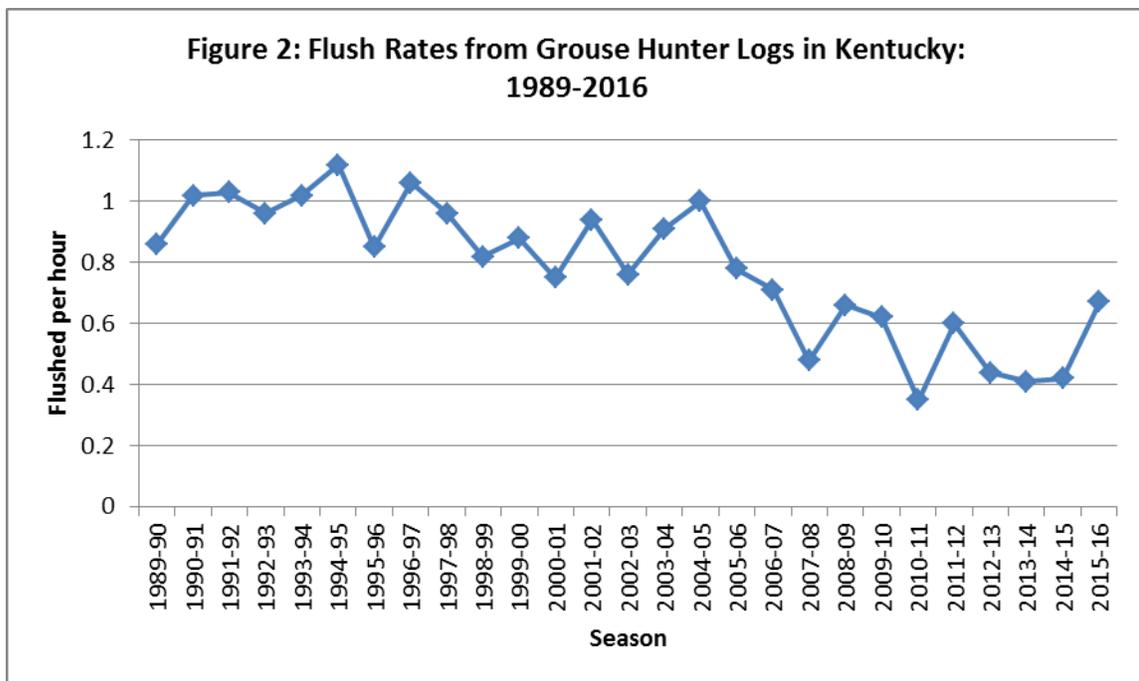
GROUSE POPULATION STATUS

Drumming Survey – The number of drummers heard this year (Spring 2016) showed a sharp decrease compared to Spring 2015 year (Figure 1 & Appendix A). This year's average of 1.39 drummers/100 stops is below the 20-year average of 5.37. Reasons for this dramatic drop are unclear.



Increases in drumming that occurred between 2000-2002 and 2003-2006 were likely the result of ice storm damage. Weather events such as ice storms or tornados that open the forest canopy can result in dense understory vegetation that provides good grouse habitat locally for several years. Two tornados traveled across parts of Northeastern Kentucky in March 2012 that created some excellent grouse cover. We have received reports of increased flush rates in these areas and we expect an increase in the number of drummers in these areas over the next several years. Currently no Spring drumming survey routes are located within the tornado zone, although we are considering the feasibility of adding such routes.

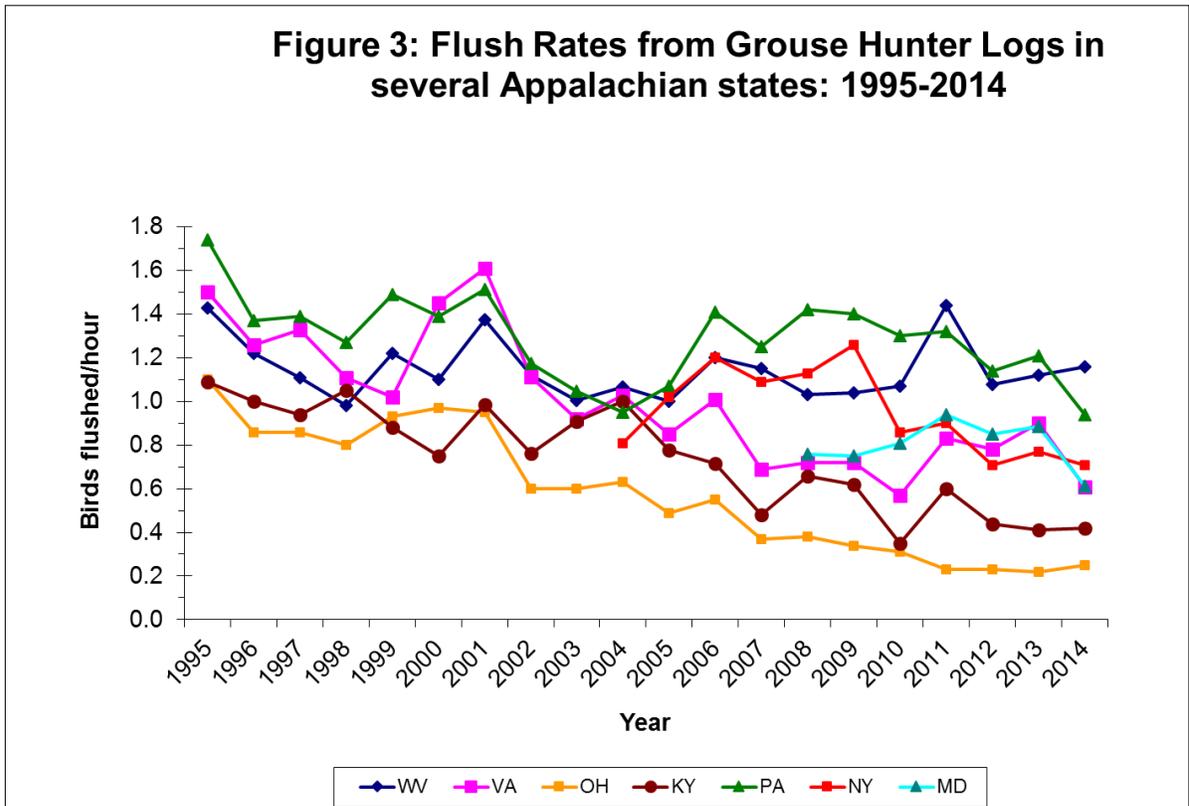
Flush Rate – The hunter flush rate for the 2015-16 season was 0.67 birds per hour, which represented an increase compared to the previous 3 seasons (0.44, 0.41, and 0.42, respectively) (Figure 2). However, this flush rate was below the long-term average of 0.78 birds per hour. The overall trend of the grouse population based on flush rates is slowly decreasing. Flush rate data is the most reliable indicator of the grouse population if sample sizes are adequate.



Other Appalachian states collect flush rate data from hunters to index grouse populations (Figure 3). Data from neighboring Ohio and Virginia show declines similar to Kentucky over the past 20 years.

In order to obtain a more accurate estimate for Kentucky, we need to recruit more hunter cooperators! Please share this report and encourage fellow grouse hunters to participate by submitting a hunting log to KDFWR.

Figure 3: Flush Rates from Grouse Hunter Logs in several Appalachian states: 1995-2014



HUNT AND HARVEST DYNAMICS

Hunt Characteristics 2015-16 Season –

- Hunters reported data from 224 hunts.
- The average hunt was 3.5 hours.
- Dogs were used on 97% of hunts.
- Hunters killed an average of 0.31 grouse per hunt.
- Hunting effort was inconsistent throughout the season (Figure 3).
- Flush rates increased as the season progressed, although harvest showed a consistent pattern throughout the season (Figure 4).

Figure 3: Average Number of Hunts per Available Day: 2015-16

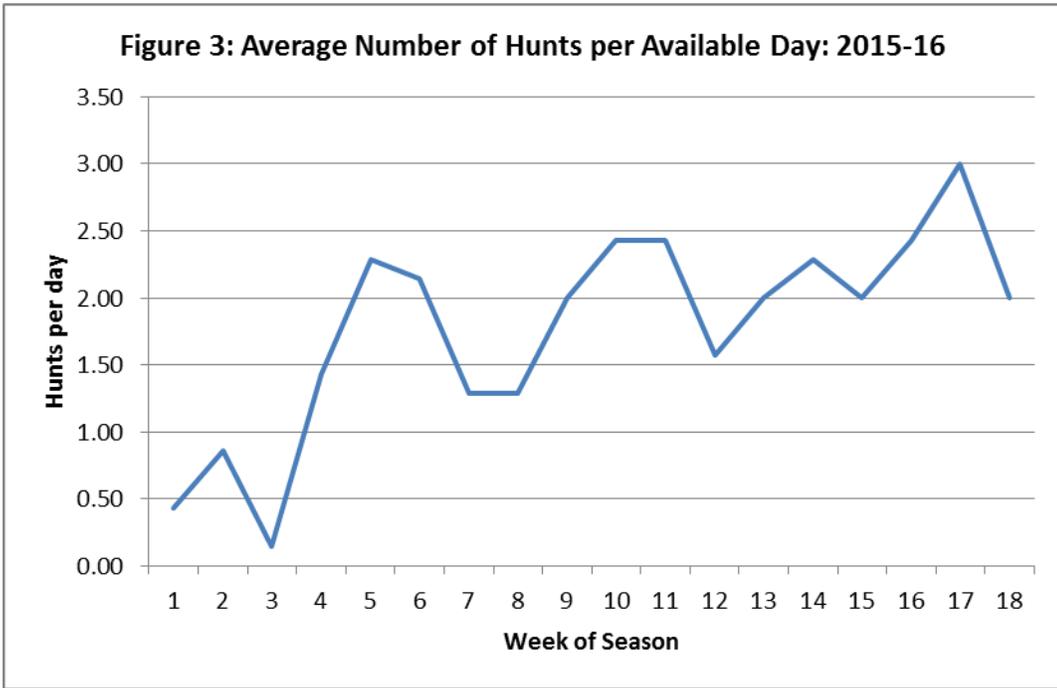
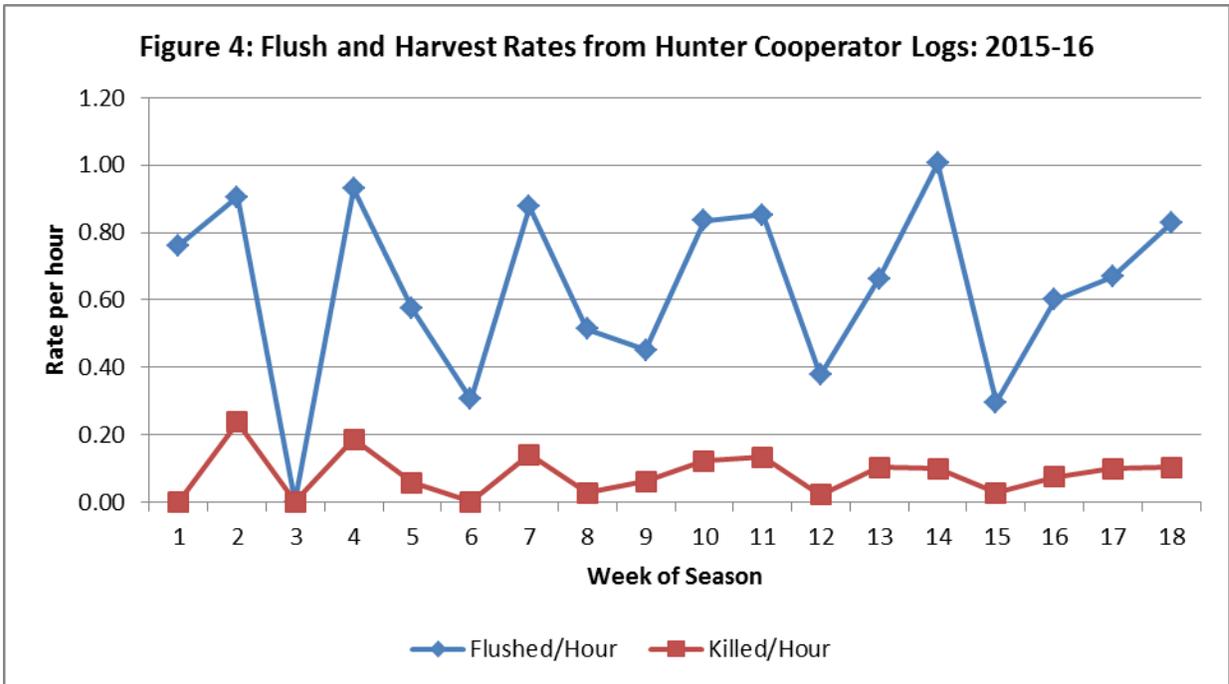


Figure 4: Flush and Harvest Rates from Hunter Cooperator Logs: 2015-16



OUTLOOK FOR THE 2016-17 GROUSE HUNTING SEASON

Despite the drop in drummers heard during KDFWR surveys this past April, we hope Kentucky grouse hunters can expect their season to be similar to last year. The 2015 mast crop was good. Research has shown that the productivity of hens is linked to the fall mast crop. Healthy hens lay better eggs and are better able to raise a brood. Simply put, more mast and other food equals more birds. We have received reports of broods being seen in areas with quality habitat.

Hunters should target areas that may have experienced extensive storm damage within the last several years, such as ice or high wind. Areas that have seen a timber harvest within the last 3-10 years are also good places to seek out for grouse. As mentioned above, the northeast portion of the state experienced extensive tornado damage in March 2012. It is estimated that more than 23,000 acres of forest were damaged. As these areas begin to regenerate, grouse should take advantage of the quality cover. As always, there will be local areas where grouse are plentiful, and areas where grouse are scarce. Get outside and scout to find the best areas in your neck of the woods!

GROUSE PLAN IN PROGRESS

In June 2016, a draft "Ruffed Grouse and Young Forest Strategic Plan" was produced by KDFWR. To view the plan and other information on grouse, visit KDFWR's grouse webpage at <http://fw.ky.gov/Hunt/Pages/Grouse.aspx>.

Public input on the draft grouse plan was received by phone calls, emails, and 3 meetings held across the states. This input is being combined with that received at meetings held in 2015 in Morehead, Paintsville, and Corbin.

The plan emphasizes young forest habitat improvement on WMAs, the Daniel Boone National Forest, and other areas as the only feasible means of improving hunting opportunity for grouse. A final draft plan is in preparation, but coordination efforts with KDFWR regional staff and partners has begun. Partnerships, communication, and patience will be required. Please support our efforts. Contact Grouse Program Coordinator Zak Danks at 800-858-1549 extension 4544 for more information on how you can help.

ADDITIONAL HELP IS NEEDED

Grouse hunters can improve the survey information used to track Kentucky's grouse population by recruiting new participants. **More survey participants are needed!** Please prompt your friends and neighbors to track their hunts and pass that information on to KDFWR. Forms are available from the Department by calling (1-800-858-1549) or by visiting the Department website: fw.ky.gov/smallgamelogs.asp. We remain pleased with the Hunter Log Cooperator Survey and hope to see it expand with every passing season. The KDFWR Wildlife Division sincerely thanks the grouse hunters who have participated in the grouse surveys for many years. Your dedication makes this report possible and helps track grouse populations across the state.

Good luck and have a safe and productive season!

Appendix A																					
Route	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
NORTHEAST REGION																					
Bracken County	.	.	.	2	1	0	2	0	0	1	1	1	0	0	0	0	0	0	.	.	.
Grayson Lake WMA	1	0	1	1	0	4	1	0	1	5	2	2	0	3	0	4	4	4	2	3	2
Fleming WMA	2	3	2	2	3	4	5	.	1	.	10	7	16	12	9	9	10	9	6	6	0
Paintsville Lake WMA	2	3	1	1	2	5	2	0	1	0	0	3	0	2	0	.	0	.	2	4	0
Yatesville Lake WMA	3	0	2	1	0	1	1	1	5	5	4	0	2	0	1	2	1	1	1	1	1
Clay WMA	2	1	5	.	4	2	.	.	.	.	1	0	1	2	1	4	4	1	1	0	0
Fishtrap Lake WMA	7	4	6	4	2	6	6	.	3	.	1	.	1	.	.	10	.	.	.	1	1
N. Grouse Demo Area	1	0	0	0	0	2	2	2	4	5	5	4	9	7	3	2	1	4	4	1	1
SOUTHEAST REGION																					
Beech Creek	0	0	.	1	1	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0
Mill Creek WMA	2	1	1	3	3	3	3	0	2	2	2	3	3	2	3	1	0	0	0	1	.
War Fork	1	2	2	3	2	3	4	1	2	2	2	4	2	1	3	1	1	1	1	0	.
Cane Creek	1	1	1	4	1	3	3	2	2	1	2	2	0	0	0	0	0	0	0	0	0
Redbird WMA (Crest Trail)	3	.	2	3	1	5	9	.	.	2	.	0	.	.	1	1	0	0	0	.	0
South Fork	1	1	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Buck Knob	1	2	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Stephens Knob	.	.	.	.	.	.	.	.	.	.	.	.	.	3	3	4	1	4	0	2	.
Total	27	18	26	26	20	39	38	8	23	23	31	26	34	32	24	38	22	24	17	19	5
Stops	660	630	555	690	735	735	570	345	450	345	390	390	420	420	450	450	450	420	420	420	360
Drummers/100 Stops	4.09	2.86	4.68	3.77	2.72	5.31	6.67	2.32	5.11	6.67	7.95	6.67	8.10	7.62	5.33	8.44	4.89	5.71	4.05	4.52	1.389